THE GENESEE FARMER.

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THE FARMER.

SATURDAY, AUGUST 10, 1833.

GOOSEBERRIES.

Some weeks ago we visited the garden of JOHN E. WILLIAMS, Esquire, of Aurora, and were much gratified to observe the remarkably fine condition of his gooseberries, the bushes being literally loaded with some of the fairest fruit we have ever seen. The kind is the large English white, which some call "the snow drop." He informed us that one of his friends, not twenty rods distant, has entirely failed with it, the berries being ruined by the mildew; and he is inclined to ascribe his own exemption from this blight to the circumstance of his bushes standing on the sides of an alley which is washed in heavy rains, and in which *the upper roots are laid bare*. He knows of no other cause except careful trimming, and their proximity to the lake; and though mildew is very rarely observed, he thinks when it does occur, it is generally on those bushes which are most remote from the water.

The cause of mildew on either grapes or gooseberries, appears to be but partially understood. Why it should be so much more destructive to both in the United States than on the Eastern Continent, we believe has not been satisfactorily explained. Whether mildew is a parasitic plant,—and if so, whether that on the grape and on the gooseberry are identical,—or not, we have not been informed. It may be admitted as a rule, however, that the gooseberry is free from mildew in proportion to the thriftiness of the plant; and for this reason perhaps, gardeners recommend it to be highly manured. We have at present three kinds that we shall particularise in proof of this opinion. The *first* is a dwarf of feeble growth, every berry of which is covered up in mildew; the *second* kind is more vigorous, some of the fruit is fair, and some not; but the *third* is a bush of the most luxuriant growth that we have seen, and none of its fruit to our knowledge, has ever been mildewed. It would be worthy of general attention were the berries larger and the flavor better.

The application of this rule to grapes, is more doubtful; and its traces less distinct. Young vines, indeed, of two or three years growth, even of exotic varieties are commonly exempt from mildew; but we cannot say that their vigor is much lessened when they become four or five years old, and when they prove so frequently unproductive from this blight. Vines that grow in Green Houses, or on the sides of a building where the roof projects over them two or three feet, may be supposed rather more feeble than such as run on a trellis, yet the fruit of the latter is often ruined when the former presents the finest clusters.

From these facts we might hastily conclude that mildew is caused by excessive moisture; and we have seen the leaves of a shrub very much mildewed in consequence of pouring water over them many times in a day for several days together; but it is not known that our climate is wetter than that of France or of England. On the contrary, the interior parts of the Genesee Country is probably drier; and yet we have mildew.

We have been induced to throw these observations together, not in the hope of imparting much instruction; but for the purpose of eliciting other facts and remarks from our correspondents on this very interesting subject to horticulturists; and in conclusion would say that we know not why laying bare the upper roots of a gooseberry should exempt the fruit from mildew. It can hardly increase its vigor; and if this is the true cause, it may be an exception to our rule. As an experiment therefore we should be glad to see a bush subject to this malady, raised by a handspike when the ground shall be in its loosest state on the breaking up of winter, so that a portion of its upper roots may be laid bare.

MOUNT AUBURN.

A recent visit to this Garden Cemetery enables us to add some facts to those stated in the last page of the Farmer of the 29th June.

The grounds originally purchased, in 1830 or 1831, amounted to seventy-two acres, thirty-two of which were destined for a Horticultural garden, and the remaining forty for a burying ground.—The first had been under cultivation; the latter was principally covered with a growth of young forest timber. An additional purchase of thirty acres was made during the last year. The avenues and paths,—the first for carriages, and the latter for pedestrians,—wind in mazy curves among the hills and dells, and intersect at all angles. The most prominent hill, Mount Auburn, is near the southern extremity of the grounds, and has an elevation, we should judge, of two hundred feet. A good carriage avenue winds to its apex, from which a fine view opens to the spectator. On the east he sees the village of Cambridgeport, and still farther Cambridge with its rural beauties. Looking a little to the right, the eye rests upon Boston, the city of bridges, and Charleston, with its proud memorial of American valor, the Bunkerhill monument, peering above its buildings, and an intervening sheet of water. In the southeast, South Boston, Roxbury and Brookline, appear almost as a continuous village. On the south, at the distance of two miles is the interesting village of Brighton, and on the west the village of Watertown, Watertown river winding along upon the south. The *coup d'œil* is one of the finest imaginable; and will be yet more interesting from the observatory which is to be erected upon the summit of this mount.

Fronting upon the avenues and paths, about three hundred lots are laid down upon one map, sufficiently large for family burying grounds, and ample space is left for quadruple this number. These the proprietors fit up and ornament to their taste, and of course are much diversified.

The grounds were purchased by a company, each subscriber paying $60, and a choice of lots given to those who bid the most above this sum. The company have already been indemnified for the purchase money and the improvements.

The plan of this Cemetry is Parisian, or rather oriental, resembling those about Constantinople, so highly commended by Com. Porter. Judging from our sensations on visiting Fair Auburn, we venture to recommend a visit to this consecrated spot, as one which cannot fail to afford deep interest and high gratification; and to express a belief, that the good example of Boston will be ere long imitated by many of her sister cities. E.

THE BLUE CHOLERA CURED BY ALOES.

In the last number of Silliman's Journal, we find an article* copied from the *Bibliothique Universelle*, 1832, consisting of remarks and extracts from a work by J. B. A. GUILLEMIN, Doctor in Medicine, which affords some new views, of the operation of *Aloes;* and to such of our medical readers as may not have seen either of those journals, a brief notice may be acceptable.

He adopts the opinion of Baron de Wedekind "that the purgative effects of Aloes are not dependent upon, as is the case with other cathartics, an augmentation of the intestinal secretion, and an immediate stimulation of the contractile fibres of the intestines;—but that *this substance is first absorbed*, carried into the circulation, then secreted in great part by the liver, whose activity it increases, and is finally ejected from the body in consequence of a purgative effect which is *only secondary*. In fact, the purgative action of aloes is only manifested several hours after its injection, in whatever doses it may have been taken."

After various remarks on the foregoing opinion, Dr. Guillemin says, "Its important conclusions were fresh in my memory, when the Asiatic Cholera Morbus was announced among us, about the end of March, 1832. It appeared to me that aloes might be rationally employed in the treatment of this terrible disease. Indeed the suppression of the biliary secretion coinciding with the abundance of whitish or greyish dejections, is one of the most alarming symptoms. When by the power of Nature alone, or by the effect of some therapeutic agent of whose properties we are ignorant, this suppression ceases, and the dejections begin to be colored, we have then an almost infallible sign of amendment."

The proposal to employ this medicine was rejected by two physicians to whom it was made, but a third attempt was successful. "Dr. Biett, physician to the hospital Saint Louis, immediately after the communication of my paragraph upon aloes, did not hesitate to administer this substance to some *ch. erics*, and has obtained satisfactory results."

Dr. Biett says: "I have had recourse to aloes in *three cases of very serious blue cholera*, and the success has surpassed my expectations. The first case was that of a man of fifty years of age;

*Translated from the French by John H. Griscom, M. D. of New-York.

he was attacked in the night; the matter vomited and the dejections were white and abundant; the skin cold and livid; the tongue cool, and the prostration extreme. The aloes were prescribed in doses of two grains every hour; its action was slow, but at the fifth hour, the *stools were colored*, not with the golden yellow of aloes, but with the greenish yellow of bile; the matter vomited presented the same character. The urine soon reappeared, as well as the heat of the skin. The livid tint was replaced by a lively red color. This state continued to improve. The aloes were continued for two days in the dose of twelve grains; the amendment continued to advance. Cold mucilaginous drinks were continued, and shortly after some slight nourishment was allowed, by which means he was in a condition to leave the ward five days after entering it.

"Still more prompt and satisfactory results were obtained with two other patients. The one, named Gaudin, aged thirty years, entered on the 18th July, with the most serious and well marked symptoms. The aloes, continued for two days in the quantity of nine grains, reinduced the biliary and urinary secretions, and the heat; and finally caused the rapid and progressive disappearance of all the symptoms.

"The other, named Clement, a young man of twenty, was equally *blue*, having vomitings and white dejections, with but few cramps. The aloes, given at the rate of twelve grains a day produced the same effect.

"This medicament has been administered *only to these three patients*. Its action was noticed at the end of three or four hours, and when once commenced, it was continued without interruption. We prefer the gummy extract, the action of which appears, in general less irritating. These *three* patients did not evince *any trace of irritation*, in their convalescence. The only well founded objection which can be made at present, to this medicinal substance, is the slowness of its action. It has probably already been had recourse to, in India, for its presence is easily recognized in the bitter drug, a composition which is often employed in India against cholera."

——"The Missionaries of Serampore assure us that this medicament cures in India almost all the sick when it is administered in time."——

——"The Polish refugees in their passage through Baume gave to their hosts the recipe of an anti-choleric liquid. It was simply that of the elixer of long life or of compound aloes, which they believed to be an excellent prophylactic."

ORCHARD GRASS.

We are much indebted to the politeness of Mr. JAMES KELLY, the Editor of *The Bucks County* (Pa.) *Intelligencer* for a series of essays *On Orchard Grass* which we commence republishing to-day. They originally appeared in that paper in 1831; and, we understand, they are from the pen of William H. Johnson Esq., a gentleman distinguished for his literary and scientific attainments, as well as for his very successful operations as a practical farmer. We hope our readers who are engaged in Agriculture will give them an attentive perusal.

Three persons died in Washington on Sunday last, from drinking cold water.

SUMMER FLOWERS.

[*In a letter of the 31st ult. to the Editors.*]

Orchis ciliaris is best suited with a moist sandy soil and some shade; and is one of the few beautiful wild flowers which appear at this time in this vicinity. By calling in the conscripts of other climates however, a full supply is obtained; and there is no lack of ornament for our borders. Many of those already noticed, lend their aid,—for the flowers of summer are commonly of longer continuance than those of the spring.

The Virgin's Bower (*Clematis flammula*) is now in its pride, and perfumes the garden. This climbing shrub is literally covered with white flowers. It is not quite hardy; but though its top is often killed in winter, it blooms profusely in the following summer, and consequently requires no protection

Koelreuteria paniculata is a stout shrub from China, with yellow flowers in large panicles, much frequented by bees. It is very showy.

Bocconia cordata is another Chinese delegate. The leaf much resembles our blood root (*Sanguinaria canadensis*) and belongs to the same Natural Order; but its stalks are more than eight feet in hight, and altogether, forms a very conspicuous ornament of the border.

Lilium tigrinum is one of the finest species of the Eastern Continent; but *L. superbum* from the shores of the Delaware is equally splendid. I have a small plant of the latter six feet high with only ten lilies, but even this is magnificent. It requires a rich moist soil, and some protection from the noon tide sun.

The genus *Rudbeckia* chiefly consists of a groupe of coarse but showy plants, and some of them well adapted for shrubberies. *R. purpurea* and *R. pinnata*, natives of the western prairies,—and *R. laciniata* of our own district,—are of this kind; while the shorter stems of *R. moschata*, *R. hirsuta*, and *R. fulgida*, are better suited to the garden. The last comes the latest into flower.

Digitalis ferruginea is an old inhabitant of the gardens in Europe. Its smooth stalk—straight as an arrow—terminates in a very long spike of striped flowers of a rusty appearance. Though not splendid it deserves a place.

There are few brighter flowers in any country than those of *Lobelia cardinalis* from our wet grounds. Enrich the soil with *muck*, and it grows well in gardens.

Hibiscus syriacus (the Althæa frutex of the old gardeners) is one of the very few hardy shrubs that flower late in the season. The more double varieties assume the character of southern plants in blooming later, and being more tender. With the double white, I have had no success.

The Hollyhock (*Althæa rosea et ficifolia*) might seem to be best omitted in a list of fine plants, but some varieties are worth a passing notice: Of these, are the double crimson, the double gray, the double rosy, and the double black—the double yellow has the least share of beauty.

The Black Worm.—Complaints are made in Upper Canada of a large black worm, which is making fearful ravages with the grass and wheat of the new settlements. They appear to be as voracious as the locusts of Egypt. A single wheat field of fifty acres, had been entirely cut off by this new and destructive insect.

YELLOWS IN PEACH TREES.

A correspondent has a tree in the last stages of this disease, standing about forty feet from two other trees which it appears to have infected this season. It is remarkable that only a horizontal branch of each, extending towards the sickly tree, is affected: in both, it is indicated by the discoloration and premature ripening of the fruit, but in one, only by the yellowness of the leaves,—while all the other parts of both trees have the most healthy aspect. He believes the *pollen* has communicated the disease, and that therefore the first appearance was in the fruit: The yellow leaves, indicating the progress of the malady, was not observed til within a few days. He will endeavor to save the trees by removing these branches, though he has doubts of its success.

For five years past, I have taken pains to sow very clean seed; and the effect has been five crops of wheat, most handsomely free from chess.

The preparation of my seed has consisted in taking it from parts of the field where the wheat grew finest and ripened earliest. Since the second year, the fanning-mill leaves it clean enough.

My progress in destroying chess will be hindered, very much to my regret, by not having been able to weed it out of my wheat crop this season.

One of my harvesters the present year, having been requested to look out for chess, told me, after half a day's observation (such as his work would allow) that he had seen but one root of it.

These five successive clean crops MAY be so many *accidents*. Let them for the present be so considered; for while I raise wheat, the readers of the Farmer shall know, from year to year, what good results from unremitted efforts to destroy chess. NOAH DENNIS.

Ledyard, (*Cay. co.*,) *N. Y. 7 mo.* 1833.

WELLS AND PUMPS.

That part of the Genesee Country which lies in the range of our parallel lakes, extending to Lake Erie on the west, is underlaid by shale or crumbling slate; and nearly all the basins of those lakes, are excavations in this rock. It appears also to have been greatly abraded and channeled in various places, somewhat parallel to those waters, during some convulsion of Nature which preceded the diluvial deposit, for this has filled most of those cavities or vallies and has given a comparatively smooth surface to the district. This rock is therefore found in digging, at various depths.

Wells that do not reach it invariably afford more water; as very little can pass through the seams of those compact strata; and few, if any, springs of value, originate there. Wells that are sunk in this rock, receive their chief supply through the gravel or subsoil that overlays it; and the excavations within it, are of little use, except as reservoirs. Perhaps we may take twenty feet as the average depth of wells of the latter description.

Pumps are not famous for yielding good and pure water; but pumps in wells of the latter kind, are particularly noxious. The cause of this evil is easily explained. The pump is a bored log extending from the bottom to the top of the well. In spring, the well is nearly full of water from abundant rains, in which the pump stands *soaking*. As summer comes on, the water sinks, the wet wood decays, and the water absorbs the putrid vapor, till the whole volume becomes tainted. The

absorption of various gasses by water is a circumstance well known to chemists.

I had used a pump made of pine scantling which spoiled our well water. I was then told that white oak was altogether preferable. It is probable that oak would answer in a well that keeps nearly at the same hight throughout the season; but in ours the advantage of hard timber was scarcely perceptible. The nuisance could be borne no longer; and though my pump had been brought twelve or fifteen miles in order to have one of a superior kind, we threw it out.

Over the well, a light frame and roof were then erected. Under this roof, a horizontal shaft with a drum on one end, was fixed—a strap which is fastened to the shaft, winds up a heavy stone, properly proportioned, while a rope attached to the well bucket unwinds over the drum as it descends to the water; and which when filled is drawn up by the weight of the stone.

We find this contrivance,—which is not uncommon in this district,—very convenient and the water is no longer tainted. A strap of harness leather four inches wide for raising the stone, works very smoothly, and is much preferable to a rope. We have also found the following a great improvement: A hole bored in the bottom of the bucket with a spike gimblet, lets off the water not wanted for immediate use. The dashing of this small stream on the water below, mixes pure air with it, and renders it more pleasant to the taste; and we are neither incommoded by warm water in the bucket in summer, nor by ice in the winter, unless the weather be intensely cold. In the latter case boiling water from the tea kettle, soon removes the obstruction.

A Farmer.

Messrs. L. Tucker & Co.—Although I am well aware that the Genesee Farmer is strictly an Agricultural paper, yet I believe it will not be entirely useless to give some correct notions of law among our farmers. First. I believe the impressions too generally entertained on this subject are erroneous. It appears to me certain that the law intends always to do right, and if it fails to do so, it is owing to some misunderstanding in the judge or magistrate—to some defect in the testimony, or to some pettifogging plea, intended to defeat the just intentions of the law. That the law sometimes does a partial evil to procure a greater good, is readily admitted. Of this kind I take to be the law of limitation. This often does injustice to honest men, but to leave book accounts and notes without seal unsettled beyond six years is always attended with much dispute and litigation. To avoid this greater evil, the limitation law is intended, and is certainly wise, as oral testimony after six years would be very uncertain.

Again, a man receives an insult or injury and takes satisfaction himself. This may be just and reasonable, but the law will not justify him, because if every one was allowed to take the law in his own hands, and to judge for himself as to the measure of satisfaction, there would be imminent danger of society degenerating into a state of nature. The law has provided proper judges and remedies in all such cases, and men must appeal to the law and not take the satisfaction themselves at their own discretion. Many are the instances that might be pointed out where the law does essential evil to procure a greater good, but these are sufficient. Now I hold that pettifogging is to law, what falsehood is to truth, vice to virtue, wrong to right, the very bane and antipode. The object of pettifogging is to defeat the holy intentions of the law; hence we may see a general impression of the glorious uncertainty of law, and of its injustice, and a general belief that all law and lawyers are great evils. But I am persuaded that we have even some honest lawyers and quite too many pettifoggers. Yours, &c. R. M. W.

P. S.—I think a pettifogger should be held in such estimation as we would a man who was caught coming out of a sheep-fold at night with a fat weather on his back.

Mortality among Horses and Cattle.—A disease prevails among horses and neat cattle, in the county of Philadelphia, which destroys them very suddenly. A letter says—"My cows and horses were apparently in health three hours previous to death, and in every instance they were found dead without exhibiting any symptoms of disease. I am told, however, that a horse of one of my neighbors exhibited uneasiness and a kind of vertigo, a few hours previous to death, but that no symptons of disease were visible in the morning—the animal having died in the evening."

Prolific Cow.—The Ashtabula (Ohio) Sentinel states—Mr. Abel Woodworth, of New-Lyme in that county, has a cow that is only eight years old, which has had *twelve calves!* and had none till she was three years old. The fact is well authenticated that she has produced *six pair twins.*

ISABELLA WINE.

It has become generally known among my friends and acquaintance, that last season I made a quantity of wine from the Isabella grape; in consequence of which I have had numerous applications within two or three weeks to furnish the *receipts* by which I made the wine. I have only refrained heretofore from publishing it from the knowledge of my own inexperience in the matter: and I would now refer inquirers to that excellent work of *Mr. Adlum*, of Georgetown, D. C., and also to the translation of a French work of *Thiebaut De Berneaud*, published by Mr. Canfield, of New-York, where full information may be found on the cultivation of the vine, and the manufacture of wine.

I feel it a duty, however, to give a statement of my process last season, which was successful in yielding me fifty gallons of excellent wine, from a grape which is becoming very plentiful among us, and which I had not known to have been fairly tested as a wine grape.

1st. I gathered the grapes when well ripe and dry, but did not exclude green and unripe grapes, nor pick them from the stems.

2d. Crush and bruise them in any way without breaking the seed. If the skin of the grape is only broken, it is sufficient, as the pulp will dissolve during the first fermentation.

3d. Put the *must* (or pumice) into an open cask or vessel, (which I shall call a *vat*,) and stir it well during the first day, keeping it covered over the top with a cloth.

4th. The must will rise in the vat for three or four days, and when it has ceased to rise the liquor must be drawn from the bottom of the vat as long as it will run.

5th. Press the must in any convenient way, to extract the remainder of the juice.

6th. Put it in a cask, which should be full, in order that the impurities may flow over by fermentation at the bung.

7th. Put two pounds of sugar to each gallon of liquor, unless you choose to risk the possibility of your wine becoming vinegar.

8th. Fill up the cask as often as it sinks below the bung.

9th. After it ferments eight or ten days put in the bung, and leave a very small vent by the side of it.

10th. After remaining about two months, rack it off into a clean sweet cask, well scented with a brimstone match, burnt within. If it is not fine and bright, it would be well to *fine* it with the whites of eggs beat up with sand.

11th. In the month of March it should be again racked off into a cask or bottles, and placed away for use.

The wine will be of a beautiful red color, and will at first appear sweet, but will gradually become sharper and still retain the delightful flavor, as well as odor of the grape. Mine has not yet attained a year in age, and I cannot tell what changes might be effected by time.

The Isabella grapes are very plenty this season, but by reason of the wet and cold, are much inferior in flavor to what they were last year, and are not yet perfectly ripe. In a few weeks I shall probably make a greater quantity of wine than last season; and as some of my neighbors are also attempting the same, I hope to be gratified in hereafter giving our experiments to the public.

Alden Spooner.

Brooklyn, October 10, 1832.

GRASS AND APPLES FOR SWINE.

There is no question but that some farmers fatten their hogs at half of the expense that it costs others. Travel almost any considerable district of our country, you will find at this season of the year one half of the swine running in the streets, and fed on nothing but thin swill. As soon as the corn is gathered, these pot-bellied and meagre creatures are shut up in pens, and fed on unbroken corn until they are fat. In this way we have known farmers to feed away their whole crop of corn, and obliged to either buy more corn or kill them not sufficiently fattened. Other farmers will keep their swine in a thriving growing condition through the summer, and when the time comes to shut them up to be fed on corn, they are more than half fat. They thus save the greater portion of their corn for family use and to sell.

The celebrated agriculturist, Arthur Young, Esq., pastured, in 1776, sixty hogs of various sizes, on only two acres of clover. They kept in good condition, and grew remarkably fast. In connection with feeding on sweet apples, many farmers in this country have entered extensively into the plan of fattening their hogs on grass. If a shady, comfortable and clean pen, into which the apples are thrown, is made in the clover field, the hogs will remain in it the greater part of the time, and thus much manure may be saved. Unless the orchard contains a greater proportion of sweet apples, this plan is better than to turn the hogs into the orchard. It will often happen that large quantities of leaves and other suitable substances may be obtained near the pen, & which may be carted into it with comparatively little trouble.

MATURITY OF GRAIN ON OLD AND NEW LANDS.

I was much amused on perusing in your January number of the Farmer, the communication taken from the American Farmer respecting the difference in the maturity of grain on old and new lands.

I believe it will be found that the richer the land the longer all crops will be in coming to maturity. On poor, sandy soils, vegetation is rapid and short; on new lands, the soil, being charged with vegetable food, will of course be richer, whereas old land, exhausted of vegetable food by cultivation, is consequently poorer; and I conceive it makes little difference whether land be elevated one hundred or a thousand feet above the level of the sea. If it be rich, the crops will be longer in coming to maturity.

We observe this almost daily in our fields; spots enriched by ashes or other manures are frequently green and growing, while the grain adjoining them is perfectly ripe.

If these considerations be taken into view, I think it will not be hard to explain the difficulties which seem to have puzzled the farmers in Ohio.

N. Y. Farmer.

From the Bucks County Intelligencer of 1831.

THE PRACTICAL FARMER--No. 1.

Having observed some weeks since, in the Intelligencer, an inquiry respecting the influence of the *Artificial Grasses*,* in producing the disease of slabbering in horses; and also, having noticed a query respecting their relative value, it occurred to me that some remarks, the result of several years experience, might be interesting to the farmers of Bucks.

In the first place, I am unable to affirm that any of the artificial grasses are totally exempt from furnishing the proximate cause of this disease. I have occasionally observed in Timothy and Herd, as well as Clover, the same effect produced. But in observations made for more than twenty years on Orchard Grass, I have known but one instance in which the disease of slabbering could be certainly traced to this grass. This occurred in the use of the hay when it had been mown in the month of November; I have during the said time had frequent opportunities of using this grass, both for pasture and hay, having had more or less of it on the farm during the whole of that period; and in no instance, except the one mentioned, have I observed any discharge of saliva in horses or cattle from its use.

In answer to the inquiry respecting the relative value of some of the artificial grasses, I will notice Clover first, which is now in very general use. It is well known that the *second crop*, either for pasture or hay, is good for little; and it is now seldom cut for the latter purpose. The pasture almost invariably produces such a discharge of saliva, as to render it doubtful whether horses should not be kept from it altogether—and cattle will seldom or never thrive upon it. Of Timothy, little can be said in relation to its value as a pasture, as it is well known that it will not bear contined cropping in the warm season; and the injury sustained by the soil when a bare sward of it is exposed to a summer sun, has long been a common observation of the farmers. Its value as a hay alone has brought it into general use, and high estimation. The two periods of cutting it for hay, viz: in flower and when the seed is ripe, have been the most common—and experience has given a decided preference to the latter time. In either case the *aftermath*, or second crop, is rarely if ever cut in this country and climate, and of course the whole value of the crop must be reckoned on a single cutting.

The remarks concerning this grass apply with still more force to Herd, both as respects its use for pasture and hay.

The rapid and continued growth of *Orchard Grass*, after cropping or cutting, has caused surprise in all who have witnessed it, and has prompted the conclusion, *that as a pasture it is without any rival.* Unlike Timothy, Herd or Clover, when cut its growth is one continued effort of vegetation. The new shoot springs forth immediately out of the blade, and with such a rapidity, that I have known in a rich soil, during eleven or twelve days, an average growth of more than an inch per day. Of all the grasses with which I am acquainted, it is the first to grow in the spring, and continues to flourish the last in the fall. It is soft, sweet and nutritious; and when growing with other grasses, it is observed that stock uniformly give it the preference. Of the hay, it is known to cut two crops in a season, the latter nearly equal in volume and excellence to the first. On land of extraordinary fertility, I have seen three crops cut in a season, but on ordinary land and seasons, two crops may always be obtained. The hay is of such a quality as might be expected from the pasture. It has not the condensed nutriment of the best Timothy, but it amply compensates for this deficiency in the increased bulk of the *two crops*; and by furnishing a constant shade to the grounds, the soil is retained in that loose and mellow state which so effectually contributes to its fertility.

* The term "Artificial Grasses," though long employed by writers on Agriculture and therefore in *good use*, is so odd that we think a few words by way of explanation may not be irrelevant. The "Natural Grasses," such as red-top, timothy, spear grass, &c. more generally cover the surface of the earth in the temperate zones without culture, than any other family of plants; and have been most commonly employed for hay and pasture. For these purposes however, other plants have been also introduced, such as clover, lucerne, and saint foin, which are not properly grasses, and hence the contradistinction of "Artificial Grasses." The oddity of the term consists in its application to plants which grow as naturally as any other plants; and which have nothing "artificial" about them, except cultivation.— *Ed. Gen. Far.*

THE SMUT BALLS OR PEPPER BRAND.

[We are indebted for the following interesting paper to Francis Bauer, Esq., a gentleman who has attained a most deserved celebrity, for his valuable discoveries connected with the diseases of grain, the most important article of human food.]

"The existenc of this destructive disease in wheat has long been known to every agriculturist in England, as well as by those on the Continent; but the real cause of it is yet very little known; not only by the practical cultivator, but even by scientific authors. Such erroneous and contradictory opinions have been advanced that the farmer cannot possibly derive any satisfactory information from them. I hope, however, that the following observations and illustrations of facts may be acceptable to some of the numerous readers of the 'Penny Magazine.'

This disease is occasioned by the seeds of an extremely minute parasitic fungus, of the genus *uredo*, being absorbed by the roots of the germinating wheat grains and propelled by the rising sap, long before the wheat blossoms, into the young germen or ovum, when the seeds of the fungi vegetate, and rapidly multiply, thereby preventing, not only the fecundation of the ovum, but even the development of the parts of fructification. In consequence no embryo is produced in an infected germen, which however continues to grow as long as the sound grains do, and, when the sound grains arrive at maturity, the infected ones are generally larger than, and are easily distinguished from, the sound grains, by their darker green color, and from the ova retaining the same shape and form which they had at the time the infection took place. See fig. 3 and 4 in the annexed cut; also fig. 1 and 2, which represent sound wheat grains, and are here introduced to show the difference between the infected and the sound grains.

The name of this disease is also as undecided and various as the hitherto supposed causes of its existence; the most prevailing names in England, being *Smut Ball*, Pepper Brand, and Brand Bladders; and many others have been given to it, not only by the farmers of almost every county, but also by scientific naturalists.

No author has yet been found who mentions or describes this species of *uredo*, the distinguishing characteristic of which being its extremely offensive smell; I think the most proper specific name for it would be that of *uredo fœtida.*

The earliest period at which I discovered the parasite within the cavity of the ovula of a young plant of wheat (the seed grain of which had been inoculated with the fungi of *uredo fœtida*, and sown the 14th of November, 1805,) was the 5th of June, 1806, sixteen days before the ear emerged from its hose, and about twenty days before the sound ears springing from the same root, were in bloom. At that early stage the inner cavity of the ovum is very small; and, after fecundation, is filled with the albumen or farinaceous substance of the seed, and already occupied by many young fungi, which, from their jelly-like root or spawn, adheres to the membrane which lines the cavity, and from which they can be easily detached in small flakes with that spawn: in that state their very short pedicles may be distinctly seen. See fig. 7. At first the fungi are of a pure white color, and when the ear emerges from its hose the ovum is much enlarged, but still retains its original shape, and the fungi rapidly multiplying, many have then nearly come to maturity, assumed a darker color, and having separated from the spawn, lie loose in the cavity of the ovum: the infected grains continue growing, and the fungi continue to multiply till the sound grains have attained their full size and maturity, when the infected grains are easily distinguished from the sound ones by being generally larger, and of a darker green color; and if opened, they appear to be filled to excess with these dark colored fungi; but the grains infected with the uredo fœtida very rarely burst, and these fungi are seldom found on the outside of the grain; but if the grain be bruised they readily emit their offensive smell, which is worse than that from putrid fish. When the sound grains are perfectly ripe and dry, and assume their light brown color, the infected grains also change, but to a somewhat darker brown, retaining however the same shape which the ovum had at its formation; the rudiments of the stigma also remaining unaltered. See fig. 3 and 4, and compare them with the sound grain, fig. 1 and 2.

If the infected grain be cut in two, it will be found to consist solely of the outermost integument of the ovum, filled with the ripe black fungi, without any trace of the embryo or albumen. See fig. 5.

Plants of wheat infected with the *Pepper Brand* may be easily distinguished in the field by their size, being generally several inches higher than plants not infected, and larger in bulk; and I have found in all instances a greater number of stems produced from the same root, the ears containing more spickets, and these spickets more perfect grains, than were contained in those of sound plants, of the same seed, and growing in the same field.

One plant, produced from seed which I had inoculated, had twenty-four complete stems and ears, some of the stems with the ears measuring above five feet, every part of the plant proportionally large, and all the ears entirely infected. Another specimen had eight stems from the same root, five of them were above six feet high, and the ears entirely infected; the other three stems were considerably shorter, their ears smaller, and their grains perfectly sound.

This enlargement of the plant, however, is not to be attributed to the infection, but is undoubtedly the consequence of a luxurious vegetation, produced by a rich or moist soil, which secures and promotes the infection more than a dry or moderately rich soil.

Neither does this disease always effect the entire ear: I found some ears having one side infected, while the opposite side was perfectly sound. Sometimes five or six perfectly sound grains are found in an infected ear, and a few thoroughly infected grains are found in an otherwise sound ear. The infected grains are always in the last spicket at the apex of the ear; from which it appears that the infecting seed of the fungi did not reach the ovum before fecundation: in some of these grains a portion of the albumen was formed, but no trace of an embryo existed; but in others there was a considerable portion of albumen, and a perfect embryo formed. See fig. 6.

At the time when the sound grains change their color, the fungi, being ripe, cease to multiply; they are all of a globular form, and nearly of an equal size, viz. one sixteen-hundredth part of an inch in diameter. Fig. 8 is one one-hundred-and sixty-thousandth part of a square inch on the micrometer; it sustains sixteen full grown fungi of uredo fœtida; and this square, being represented of the size of a square inch, English measure, is consequently magnified one hundred and sixty thousand times in superficies, and the sixteen fungi represented in that square are magnified in the same degree; showing that no less than two millions five hundred and sixty thousand individual fungi would be required to cover one square inch.

Fig. 9 represents a fungus not quite ripe with its short pedicle; and fig 10 a perfectly ripe one.

both magnified one thousand times lineally, or one million times superficially. These figures are thus highly magnified to show the reticular structure of these fungi, which forms the external membrane; and it appears that the internal substance consists of a cellular tissue.

Fig. 11 represents one of the fungi shedding its seed, which is only observable when viewed under water. I could never yet see the seeds of these fungi in a dry state, for they then appear to be mixed with some mucous fluid, which causes them to adhere together in hard lumps.

That the seeds of the fungi of uredo fœtida are the sole cause of that destructive disease in wheat, the *Pepper Brand*, I think I have fully ascertained by numerous experiments of inoculating even the finest and purest samples of seed-wheat; and if that fact be admitted, it becomes evident that the prevention of it can only be effected by cleansing the seed-wheat so effectually, that every particle of the fungi and their seeds be entirely removed from the grains. But as these extremely minute fungi when once mixed with the seed-wheat, insinuate themselves into the grooves at the packs and the beards of the tops of the wheat-grains, I think it almost impossible to dislodge them by the mere process of washing. I once received some samples which had been so prepared, and washed in salt water, and declared to be perfectly clean; but on my putting some of these purified grains into water, in a watch glass, and leaving them to soak about twelve hours, on then bringing them under the microscope I found many of the fungi floating on the water. This fact convinces me cleansing is no secure preventive of this disease; and that the most efficacious, and perhaps the only remedy for preventing it, is that of depriving the seeds of the fungi of their vitality. To effect this, innumerable remedies have been recommended, and I believe appled by the farmers, but have seldom proved entirely successful. From my own often repeated experiments, though on a limited scale, I am convinced that the best and surest remedy is to steep the seed-wheat in properly prepared lime water, leaving it to soak at least twelve hours, and then to dry it well in the air before sowing it; but I fear that it will be found very difficult, if not impossible, even by this method, to kill the seeds of the fungi entirely, when the quantity of seed-corn is great; and consequently some infected plants might still be found in large fields.

Steeping and properly drying the seed-corn in the above manner, not only prevents the disease arising from the infected seed-corn, but does also effectually prevent the clean seed from being infected by the seed of the fungi, which might exist in the soil of a field on which diseased wheat had been growing before; and consequently the cleanest sample of seed-wheat should be steeped, as well as the most notoriously infected.

These facts I have ascertained by repeated experiments of strongly inoculating with the fungi seed-corn which before had been properly steeped and dried, and the result has always proved satisfactory, for the infection never took place.

Wheat is the only plant that is liable to be affected by the Pepper Brand, which is occasioned by the uredo fœtida. The Smut or Dust Brand, is also occasioned by an uredo, but of a decidedly different species.

EXPLANATION OF THE FIGURES.

Fig. 1. A front view of a perfectly sound ripe wheat grain, magnified five times lineally, or twenty-five times superficially.

Fig. 2. A back view of ditto.

Fig. 3. A front view of a diseased ripe grain, magnified five times lineally, or twenty-five times superficially.

Fig. 4. A back view of ditto.

Fig. 5. A front view of a transverse section of a ripe diseased wheat grain, magnified five times lineally, or twenty-five times superficially.

Fig. 6. A front view of a transverse section of an infected wheat grain, which the seeds of the fungi had only reached after fecundation, magnified five times lineally, or twenty-five times superficially.

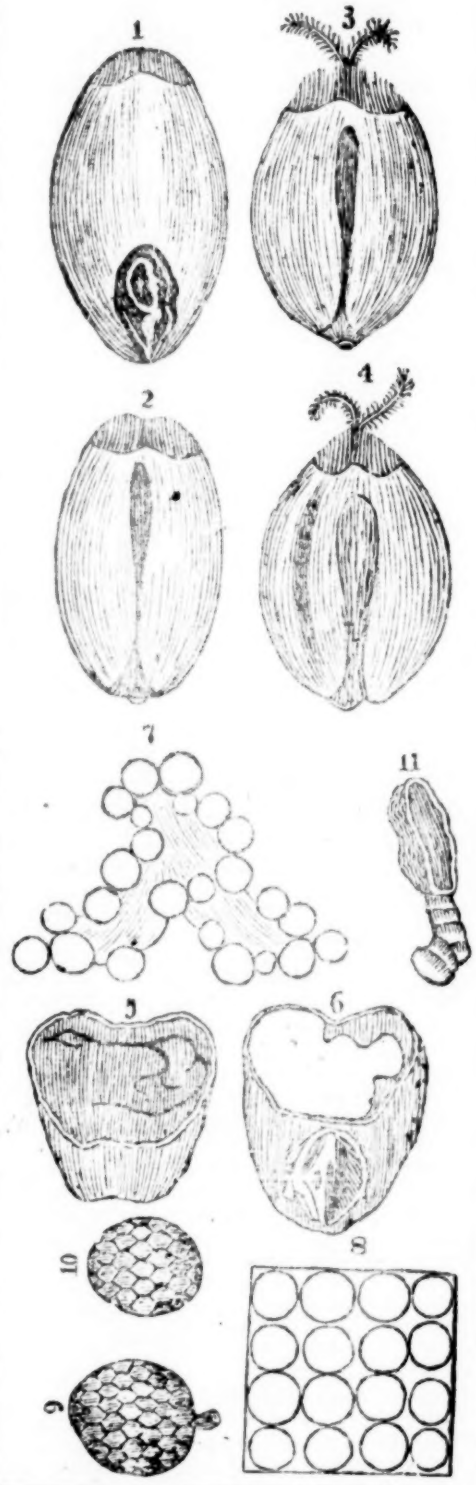
Fig. 7. A small group of fungi of the uredo fœtida on their root or spawn, magnified four hundred times lineally, or one hundred and sixty thousand times superficially.

Fig. 8. One one-hundred-and-sixty-thousandth part of a square inch on the micrometer, sustaining sixteen ripe fungi of uredo fœtida, magnified four hundred times lineally, or one hundred and sixty thousand times superficially.

Fig. 9. A young fungus of uredo fœtida not quite ripe, at which time it can be separated, with its pedicle, from the spawn.

Fig. 10. A full grown, perfectly ripe, fungus. Both these figures are magnified one thousand times lineally, or one million times superficially.

Fig. 11. A ripe fungus, shedding its seed, magnified in the same degree as Nos. 9 and 10.—*See Penny Magazine, Part XII—March*, 1833.



PRIVATEERING.—Mr. Finn, being at a tea-table where one lady made the following remark to another, "I have something for your *private ear*," immediately exclaimed, "I protest against that, for there is a law against *private earing*."

MAXIM.—A little wealth will suffice us to live well, and less to die happily.

LETTER FROM A. WALSH, ESQ.

To the New-York Horticultural Society.

At a meeting of the New-York Horticultural Society on the 25th of June, the following interesting letter was read and ordered to be published:

LANSINGBURGH, June 10, 1833.

GENTLEMEN—I have your kind letter of last month, informing me that I have been elected an honorary member of the New-York Horticultural Society.

In the objects embraced by your society, with several members of which I have the pleasure of a personal acquaintance, I feel a deep interest, and will gladly contribute whatever may be in my power to promote its views.

Your society is, I believe, the first of its description instituted in the United States. I trust it will continue to maintain a first rank in usefulness; it has certainly at present attached to it many of the most skilful florists in our country. The numerous benefits it has conferred on the State, its happy influence on the markets of the city of New-York, evidenced by the improved quality, the increased supply and extended variety of esculents, including many naturalized exotics, the taste it has inspired for the cultivation of plants, both of the useful and ornamental, with which the parterres and grounds of the citizens are now so generally stocked, and so industriously tended by the fairest of florists, the rivalry produced by exhibitions, and premiums, enlisting at once the pride and interest of competitors, the effect of example not confined to the city, but spreading its influence widely into the interior: these surely must be pleasing results of your labors, they command the admiration of foreigners, while on the citizens at home devolves the acceptable duty of casting over your institution the sweet *flowers* of gratitude. Must not I feel proud in being admitted into an association with persons thus capable, and thus desirous, to add to the comforts and happiness of the human family. I beg you will convey to the society my high sense of the honor they conferred on me.

The favored territory, comprised within the United States, presents a soil, and is blessed with a climate, suitable to perhaps all the varied vegetable productions of our planet. It is supposed there is not an exotic of whatever climate that could not find a congenial soil in some part of our extensive country, and be therein successfully cultivated. The indigenous plants of America have an interesting claim on attention; they exceed in number, in variety, in beauty, and in usefulness, those of the other portions of the globe, and draw hither the naturalists of other countries, who eagerly seek an acquaintance with, and cull largely from them. How inviable our situation! It is a doubtless fact, that art, aiding nature, and directed by science, is capable of rendering the state of New-York the prettiest spot of what may be made the most beautiful garden of the earth.

The skill and enterprise of our citizens are not exceeded, perhaps unequalled, by those of any other people: they fearlessly penetrate the forest to its utmost extent, and visit every foreign shore. Through such men, through the government and commercial agents residing abroad, opportunities offer of procuring seeds and plants, to an extent almost infinite, and in value incalculably beneficial. Of the readiness of individual citizens to advance the honor and the interest of their country, there are instances too numerous for detail. Dr. Perrine, U. S. Consul at Campeachy, addressed letters some time ago to the Chairman of the Committee of Congress, on the subject of Horticulture, urging with much force and correctness the establishment of a Nursery at or near Cape Florida, for the purpose of acclimating useful tropical plants. Many of these, or the seeds thereof, might possibly be subsequently transferred to our and other states, and successfully cultivated. The subject deserves the attentive consideration of the Horticultural Society.

All Europe is filled with admiration at what we have done for literature, not making it the special privilege of the great, but extending it to the humblest resident of the humblest cottage; but we

seem, in too great a degree, to have left to others the instruction of the agriculturist: yet the farmer is, and peculiarly so in our land, the main-stay of all that is truly valuable. The same steel that makes his plough, makes also his sword, and this again his plough; he supplies our markets in peace, and repulses our enemy in war; he is literally the bone and sinew of the State; he is the State itself: as a writer justly and forcibly observes, "God has made the breasts of those that labor in the earth his peculiar deposit for substantial viriue; the focus in which he keeps alive the sacred fire, which otherwise might escape from the face of the earth."

The connection of agriculture and horticulture with literary education, is a design which is daily becoming popular. The subject has been before the last session of the New-York Legislature, on the memorial of the State Agricultural Society. The principle was favorably received, and reports in accordance were made by committees in each house. The impression was so decided, that no opposition would have been made to a liberal appropriation for the establishment of a State Agricultural and Horticultural School. The memorialists had, however, no design to avail themselves of the crisis, and an intimation was made that they sought for no measure that would not decidedly appear to have the deliberate sanction of the public opinion; the subject of course lay over, but will probably be again before the next ensuing session of the legislature, and is worthy of your patronage.

A very interesting letter of Dr. Pascalis, on the culture of the Mulberry tree, appears among the printed works of your society. I am satisfied that silk of domestic manufacture will, at no distant day, become the common wear of our citizens, particularly females. We want the proper reeling machinery; with this it would, considering its superior durablity, not be much more expensive than cotton or linen. I send you a favorable specimen of Massachusetts raw thrown silk.

The Grape is a native of our country, and it is easy to add to our assortment by importations. What but a litttle application to the subject can prevent our having wine as good and cheap as the French or Portuguese, and raisins are easily manufactured.

It is reasonable to expect that horticulture would, like many other arts, produce more scientific discoveries, under the control of a society having no selfish view to subserve, than it could under the management of an individual cramped by the necessity of drawing from its profits the means of self support. This position cannot be overthrown by mere instances of some cases operating otherwise. It may also be observed, and with still more force, that societies can do but comparatively little, unless they enter directly into the practical part of that which they would enforce on others. Of this your society seems to have been aware.

An effort was made, a few years ago, by the New-York Horticultural Society, to obtain from the Trustees of Columbia College a lease of the Botanic Garden, for the purpose of entering practically into the objects it was laboring to promote. It is unnecessary now to enter into a detail of causes which led to a failure, over which science then wept, but which may in its result be even propitious.

The lanscape garden of Mr. Parmentier, in the town of Brooklyn, was full of all promise that taste and skill, enterprise and enthusiasm, could bestow, but it wanted what no individual enterprise can confer—it wanted the essential of permanence. Parmentier died, and the garden, beautiful and useful as it is, but escaped the fate of its enlightened projector. Let death but hurl another dart, and the Parmentier garden may sink into pristine insignificance—the place of the rose, the olive, and the grape, be usurped by the thistle.

The obtaining of the Botanic Garden, or any other ground, on *lease*, would be but a step in advance of the Parmentier Garden. It must be abandoned on the expiration of the lease, unless the lessor would grant a renewal, which no prudent person would rely on. A society having a perpetual succession of members and managers, and laboring on its own fee simple estate, can alone provide for permanence, so far as human institutions can effect that object.

It would appear from publications made under the sanction of your society, that the gentlemen who delivered the Anniversary Addresses were generally under the impression that the society was destined to give to its operations a wide range in every subject that could, to every reasonable extent, come within its purview. Ornamental Gardening on grounds belonging to the society was the theme of several of them. Doctor Mitchell went further, embracing a considerable catalogue, manuscript records, printed publications, a library, topographical maps, a garden, a herbarium or hortus siccus, entymology, manures, botany, schools, &c. Mr. Carter dwells enthusiastically on the indispensibleness of "a large public garden, suitable for conducting experiments on a more extensive scale." The extending of ornamental gardening to squares, promenades, public avenues, &c. is not new. Mr. Carter, and I think others, would apply it to "the ultimate home of all, church-yards and cemeteries," "converting them into attractive instead of repulsive objects." Dr. Francis recommends the formation of "an experimental farm, with a school for instruction in the various branches of preliminary education and agriculture." You have thus, it appears, the merit of originating principles for others to improve on.

The Massachusetts Horticultural Society has made a vigorous essay to connect literary education with practical horticulture, in its various branches, and these again with a cemetery for the repose of the dead. The project is in a course of successful experiment. At a distance of about four miles from the city of Boston, at a place now called Mount Auburn, a tract exceeding seventy acres of land has been purchased, at the cost of six thousand dollars, to which were subsequently added fifty acres, with the design to convert it into a garden for the promotion of Horticulture and an ornamental place of sepulture.

Some just and fascinating descriptions of this place have been published, the beauty of the site, its applicability to the intended purpose, and the many pursuits to which it may be made subservient. The portion intended for a cemetery was laid off in lots of about three hundred square feet. One hundred of these lots were promptly disposed of at sixty dollars each, making in the aggregate a sum equal to the entire cost of the first purchase of the land. Through this ground and its magnificent growth of forest trees, planted there by nature, and now of lofty and luxuriant growth, avenues and paths have been opened in beautiful eccentricity through its rich valleys, around its hills, and into the recesses of its groves, leading now to the botanic garden, now to the orchard, to the flower border, and to the classic ornamented tombs of the deceased:

> "Were I, O God! in churchless lands remaining,
> Far from all voice of teachers and divines,
> My soul would find, in flowers of thy ordaining,
> Priests, sermons, shrines."

I could draw your attention more at large to this subject, were I not under the impression that the publications of the day have not escaped your attention; among others a late report of the President of the Massachusetts Horticultural Society, detailing the setting out of several hundred forest, ornamental, and fruit trees. Among the seeds sown, he states having received four hundred and fifty varieties, forwarded to the society from South America, Europe and Asia. The report says, "cemeteries, like that of Mount Auburn, will soon be established in the vicinity of all large cities. A very magnificent one has been commenced near London. At Liverpool and Glasgow, measures have been adopted for emulating the metropolis of Great Britain. In Germany several cemeteries have been projected, and we hear that the citizens of New-York are determined to follow these examples."

Whether the Massachusetts Society had information that *private* enterprise was busy at New-York, to follow or improve on the Mount Auburn plan, I know not; but I should hold it a great evil, were that the case.

You may possibly have the subject in contemplation, and to that the Massachusetts report has I trust reference. I can only say that it is worthy of your society, and must highly redound to its credit and fame, should it rescue the noble design from individual cupidity.

The visitation of the city of New-York by yellow fever has probably suggested the first law prohibiting the interments within the densely inhabited part of the city. The late visitation by Cholera has suggested the idea of extending the non-interment district. The difficulty of determining where to fix the line, more than any other cause, prevents decision. In fact, the city, destined, as the late Governor Clinton observed, to contain its two millions of inhabitants, grows so fast, it seems as if it would overtake any new cemetery that might be laid out on New-York Island, before the same could be enclosed. The unceremonious violations of the homes of the dead by the authorities of the city have been so frequent, and their repetitions are so much apprehended, that a disposition extensively prevails to withdraw beyond their reach in the selection of burial grounds. It is certain that no site can be found within the city and county of New-York sufficiently extensive for general purposes, such as contemplated at Mount Auburn, even although the immense expense of a purchase did not interfere. For such a site, we must look to Long Island, or the state of New-Jersey. The attendance of friends at the funerals of the deceased would seldom extend beyond the church, or the ferry, and would in this way not be very inconvenient. The citizens are liberal, and would feel on such an occasion an unusual interest. It is not improbable that one, or perhaps two hundred purchasers of lots, at one hundred dollars each, could be easily obtained.

The proprietors of Mount Auburn have established, in the city of Boston, a vault to receive bodies as a temporary deposit, when bad weather or other circumstances prevent an immediate removal to their final destination. Here funeral processions end, and the bodies are in due time removed therefrom without parade. The distance from the water's edge at New-York to the water's edge near the cemetery, presuming that the same will be adjacent to the landing place, cannot be material, whether the same be three, four, or a dozen miles.

The resort of the citizens in times of recreation, to such a retreat, would be most delightful; within it would be no incentive to immorality or excess of any kind; the visiter might select the solitude of the grove, or the society of the virtuous; he would find amusement or instruction in every step, in every tree, in every shrub, in every flower, "each leaf a book," he might converse with the learned living, or commune with the silent dead.

I have far exceeded the limits I proposed to myself, when I sat down to thank the Society for the honor conferred on me. I seek not to direct, am unable to instruct; I have yielded to my own zeal, and must seek in it an apology for the unreasonable length of this letter.

I am, with very great respect, gentlemen, yours very sincerely. ALEXANDER WALSH.

IMPROVEMENT OF STOCK.

The article annexed appeared as a communication in the *Manlius Repository* of the 6th inst. The paper containing it was forwarded to us by a gentleman who has not probably been exceeded in his efforts for the improvement of our stock of Cattle by any gentlemen in the Genesee Country. In a letter requesting its publication he says:—"I herewith enclose you a paper in which you will find an article on Cattle, which I should be pleased to see copied into the *Genesee Farmer*,—and every other paper in the state,—as it is of the highest importance to every farmer and breeder."

Mr. Miller—Permit me through the columns of your paper to suggest a few words to the far-

mers of this vicinity, on the subject of *devoting more attention to the improvement of their stock.* I am aware that it is not pleasant to be found fault with, and that it excites no agreeable emotions to be told that our views and practices in relation to our concerns are not the wisest and best. I also fully realise, that to him who essays to counsel us, some selfish, interested motive, will generally be attributed. Be it so. If the advice is good, it lessens not its importance, it diminishes not its value, that the person giving it is interested in its success. From the experience I have had as an agriculturist, and the observations I have made from an intercourse with farmers in this vicinity, I am satisfied that, generally speaking, they very seriously err in their opinions, and are far from consulting their profit and advantage, in their views and practices in relation to the subject of improving the quality and value of their stock.

It certainly is clear as a mathematical axiom, that no farmer ought to produce an *inferior article*, either in grains or stock. He raises stock and produces grains for profit—to secure a reasonable reward for his toil and labor. The greater the amount he receives for his grains and his stock, compared with the cost and expense of producing them, the greater is the profit of his business. We all perfectly realize that the finest samples of wheat, corn, oats and barley, command a better price, and a more ready sale, than those of inferior quality; and I know not an intelligent farmer, who is not willing to take much pains, and incur, if necessary, considerable expense, in order to obtain the best samples of grain for seed. But I also know farmers of this character, who rear stock, whose practice in relation to this subject by no means accords with that in relation to their grains. They seem to forget, that in the animal kingdom, it is an inviolable principle or law of nature, that "like should produce like"—that is, that many of the leading, valuable, distinctive characteristics of the progeny, such as *size, color, form, productiveness, power, spirit, speed* and *endurance*, are derived from the parents—or characterized and influenced, greatly, by these properties in the parent. An attentive observer, who has been in the habit of crossing his breeds of cattle, sheep and horses, in order to improve them in some of these valuable particulars, often sees, with admiration and astonishment, the truth of this position illustrated, in the most satisfactory results. English farmers, by a wise and persevering attention to this principle,—by crossing, judiciously, the breeds of their horses and cattle, and by resorting to the *best of their kinds*, have brought their stock probably to as great perfection as is possible. The celebrated Mr. Bakewell, by his attention to this subject, by "breeding in and in," that is, from the same stock, selecting and using only the largest and best of the kind to breed from, has almost produced a distinct breed of cattle and sheep.

The value of cattle is estimated according to their worth or excellence for the *dairy*, the *yoke* or the *butcher's stalls.* In each of these particulars, *size* is an important item. It is wiser, therefore, to breed from a large and noble sire, than from a small and insignificant one. It is better to obtain $4 for a calf at four weeks old, from the butchers, than $2,50. It is better to rear a cow that will yield 20 to 30 quarts of milk per day, at four years old, than one that yields only 12 to 16 quarts. But these results are to be attained only by attention to breeding—by a resort to sires of the *largest size, best forms, best breeds*, and *purest blood.*

The celebrated breeds with which we are familiar here, are the DEVONS, the DURHAM, and the HOLDERNESS. The Devonshire cattle, according to the taste of our farmers, are beautiful as to color, being a rich deep red. They make active, excellent working cattle. But then, so far as I have been advised, they are by no means superior for the dairy, nor generally large and valuable for the butcher's stall. The "improved short horns," the DURHAM and HOLDERNESS, are in the estimation of English agriculturists, decidedly their superiors. "They are large, fine boned—possess great aptitude to fatten—their beef is fine—and for the dairy they are unrivaled. They have both size, strength and speed for labor, and their shoulders are well posited for the draught." They are generally pied cattle; and this characteristic is cultivated and preserved by the English farmer, as a matter of taste and fancy, with much care and partiality.

The Holderness breed are stated in the English Encyclopedia, as unrivalled for milk, the cows producing from 24 to 36 quarts of milk per day; and in a trial on the farm of the Earl of Chesterfield, of seven cows, consisting of three varieties, with crosses upon them, the Holderness cow, giving 29 quarts of milk, produced 38½ ounces of butter per day, being six ounces more than was produced by any other one!

That a farmer, who can have access to such stock for one or two dollars, should still resort to the indifferent, common stock of the country, is really surprising, and much to be regretted. When it is realised that heifer calves of the short horned breeds, 12 or 14 weeks old, have readily sold at public auction, at the fairs, at $40 each, one would think that the fee of one or two dollars for service, would be richly repaid, in preference to resorting to the common stock, gratis. I am of opinion it is repaid, by his *increased size*, in every instance, where the calf is butchered at five or six weeks old. I think I hazard little in giving the opinion, that heifers of one year old, of this breed, will command as much in cash, as the average price of common stock at three or four years old. I have been present at public sales, and seen half blood heifer calves, about four months old, sell at $40, and full blood calves at $80, and full blood cows from $100 to $250. I have seen four cows sell for $1,000.

In some parts of our country, and on many farms in every part, grains cannot be most advantageously cultivated. In such cases grazing must be the object of the farmer; and in every such case, sound policy makes it imperative on him to rear the best stock. In every such case, his gains are diminished in exact proportion as he neglects this principle.

One suggestion more. It is not only important to resort to the *best breeds*, but it is also necessary to obtain the HIGHEST and PUREST BLOOD OF THE BEST BREEDS, as well as the finest form, and largest size. Every one knows that the product of a half blood sire and a common dam, is only a *quarter blood*; whereas from a full blood sire it is a half blood; and if from a dam of half blood it is a three quarters blood; and as the price and value of the stock is enhanced by the grade of blood, the true policy of the farmer requires of him, in every instance, to blend his common and part blood dams, with sires of the *highest and purest blood it is possible to obtain.* In this way only is he to approach the value of the pure blood. In this way only is he to improve and perfect his stock, and obtain with certainty those distinctive qualities that constitute its peculiar excellence, paying at the same time due attention to *size, form and just proportions* in the sire.

In my own practice, I am endeavoring to perfect my stock by a fine bull of the "*Improved Short Horns.*" He is Holderness in two degrees, and "Short Horned Durham," in one degree. His grand dam being by the imported bull "Denton," a son of Comet, who sold in England for 1,000 guineas, and out of an imported Durham cow. He is now four years old. Is pied—a deep red and pure white—measuring rising eight feet on the line of his back—girths seven feet three inches—and weighs, in common flesh, rising 1,600 lbs. As to form and proportions, he is pronounced by judges to be very perfect.

The result of this effort is, that stock from this bull has been purchased to be taken 40, 60 to 400 miles. His calves a few weeks old have been sold at $10, $20, $25 to $40, and a yearling of his get, sold a short time since, in Monroe county, for $100—and for two year old heifers, with calves of his by their side, I could obtain $40, I think, if inclined to sell. They are not only beautiful in form, and of fine size, but exhibit every promise of being very superior for the dairy.

Pompey, July 15, 1833. A FARMER.

FAT SHEEP IN SUMMER.

A writer in the Farmer's Journal, after stating that he applies tar to the roots of the horns of sheep, and puts a little in their noses and mouths, "as affording the best security against the maggot in the head," gives the following remarks on the management of sheep in summer:

"I am careful to have none of my sheep, except those I intend for market, get very fat during the summer. I have heard it remarked, and I believe it, that after once getting *very* fat, a sheep will never arrive at the same point again. Sheep which get fat during the summer, certainly do not do as well in the fall and winter. About the middle of September I give my sheep the best feed I can, and the middle of October begin to feed sparingly with turneps, potatoes, or some kind of grain. When the time arrives for yarding, which I do rather late, I separate my flock in the following manner. In one yard I put my rams and wethers, except such of the former as have become very poor during the time of running with the ewes. In the second I put my last spring lambs; in the third all my healthy ewes, and in the fourth my old and weak (but not diseased) ewes. A sixth department is a kind of hospital, into which every sheep is removed as soon as discovered to be afflicted with disease. This arrangement I consider very important, as it affords an opportunity for treating every class of sheep in the manner judged most proper for their circumstances. I have known instances in which the lot of old and feeble ewes have come out much improved in the spring, and have produced a good fleece, and raised fine likely lambs. I always intend, however, to turn my sheep before they get so old as to become enfeebled; as they are more likely to acquire those diseases which spread through the flock."

NEW-YORK MARKET, AUG. 5.

ASHES—An entensive business was done in pots, last sales at $4.75. Pearls were sold from $4,75 up to $4,90, and the latter price could now be had.

BEESWAX—Sales of Cuba white at 32a32½ cts. per lb.

CORN EXCHANGE—There was a good demand for flour early in the week, but it died away at the close, and on Saturday the market was heavy. Prices were steady throughout, tho' with a slight improvement in Western and no reduction any where. Western was sold from store on Saturday at $5 62½ for common brands. Sales best brands Howard-st at $6,31, and for fresh ground ⅛ is offered. Rye flour and corn meal no change. 8000 bu. North Carolina wheat sold for 100 cts for poor to 120 for good fair.—Rye was dull and sold for 75 cts. for 56 lbs.—Corn also was rather dull; last sales New Jersey 75a76 cts.

PROVISIONS—Sales were hardly as brisk as before. The advance in prices has at length stopped the current in business.

Beef,	$10 00	Butter, dairy lb.	13
Do. Cargo,	4 75	Hog's Lard,	09
Pook, mess,	15 00	Cheese, Am. lb.	07
Do. prime,	11 00		

WOOL—The quantity in market is insufficient for much business. The transactions are chiefly the buying on the part of the dealers of the few lots which are brought in.

Am. Sax.	00 70	Lambs s'fine,	
Do. Mer. fl.	53	Do. 1st qual	00 50
Com. to ¼ bd.	33	Do. 2d	

Rochester Prices Current.

Wheat, per bu.	1 00	Apples,	1 00a1 50
Flour, per brl.	5 00	Lard, cwt.	8 00
Pork, mess, brl.	14 00	Cheese do	6a9 00
do prime do	10 00	Butter	12½ 00
Beef per cwt.	3a4 00	Hams do	7a8 50
Oats	34	Pot Ash, cwt.	3 50
Corn	63	Pearls,	3 75a4 00
Rye	75	Hides, cwt.	5 00
Barley	50a56	Sole Leather,	19a22 00
Hay, per ton,	8a9 00	Harness do	25 00
Grass Seed,	1 25	Upper p.side,drs'd	2 25
Potatoes,	25a37½	Bundle do	3 00a3 50

RULES OF LIFE.

We can have no better standard for the regulation of one's conduct in life, than the precept and example of men who were happy and respected, and whose principles and virtues continue to be cherished and received by the generations which follow them. In the following, we are probably presented with the rules which led to the distinguised eminence and usefulness of JOHN LOCKE. No one can fail to derive pleasure and profit from imprinting them upon the tablets of his memory :

THUS I THINK.

It is a man's proper business to seek happiness and avoid misery. Happiness consists in what delights and contents the mind ; misery in what disturbs, discomposes, or torments it.

I will therefore make it my business to seek satisfaction and delight, and avoid uneasiness and disquiet ; to have as much of the one and as little of the other as may be.

But here I must have a care I mistake not ; for if I prefer a *short* pleasure to a *lasting* one, it is plain I cross my own happiness.

Let me then see wherein consists the most lasting pleasure of this life ; and that, as far as I can observe, is in these things :—

1st. Health,—without which no sensual pleasure can have any relish.

2d. Reputation,—for that I find every body is pleased with, and the want of it is a constant torment.

3d. Knowledge,—for the little knowledge I have, I find I would not sell at any rate, nor part with for any other pleasure.

4th. Doing good,—for I find the well-cooked meal I eat to-day does now no more delight me, nay, I am diseased after a full meal ;—the perfumes I smelt yesterday now no more affect me with any pleasure ; but the *good turn* I did yesterday, a year, seven years since, contiuues *still* to please and delight me as often as I reflect on it.

5th. The expectation of eternal and incomprehensible happiness in another world is that also which carries a constant pleasure with it.

If, then, I will faithfully pursue that happiness I propose to myself, whatever pleasure offers itself to me, I must carefully look that it cross not any of those five great and constant pleasures above mentioned. For example, the fruit I see tempts me with the taste that I love ; but if it endanger my health, I part with a constant and lasting for a very short and transient pleasure, and so foolishly make myself unhappy, and am not true to my own interests.

Innocent diversions delight me : if I make use of them to refresh myself after study and business, they preserve my health, restore the vigor of my mind, and increase my pleasure ; but if I spend all, or the greater part of my time, in them, they hinder my improvement in knowledge and useful arts, they blast my credit, and give me up to the uneasy state of shame, ignorance and contempt, in which I cannot but be very unhappy. Drinking, gaming, and vicious delights, will do me this mischief, not only by wasting my time, but by a positive injury endanger my health, impair my parts, imprint ill habits, lessen my esteem, and leave a constant lasting torment on my conscience ; therefore all vicious and unlawful pleasures I will always avoid, because such a mastery of my passions will afford me a constant pleasure greater than any such enjoyment, and also deliver me from the certain evil of several kinds, that by indulging myself in a present temptation I shall certainly afterwards suffer.—*John Locke.*

NATURAL PROVISION FOR MAINTAINING THE PROPORTION OF THE SEXES.—Prof. Hassacker, in a letter to the Medical Gazette of Inspruck, shows, that in proportion as the age of the married male exceeds that of the female, the proportion of boys born to girls increases. In cases where the father was from nine to twelve years older than the mother, the male children were to the female as 123 7-10 to 100 ; when the father was eighteen years or more older than the mother, the male were to the female children, as 200 to 100. Is not this a marvellous provision of nature ? The object to be promoted is to supply the deficiency of males, the male parent having lived without propagating the species, and the result being the same as if the male had not lived, or as if there had been fewer males.—*Qu. Jour. Ag.*

SOUR SOIL--AGRICULTURAL SCIENCES.

Mr. Editor—I will mention an incident, by way of exhibiting the importance, to the farmer, of an acquaintance with the general principles of philosophy and chimistry. I am a farmer of the old school, and have more land than learning, and more faith in economy than skill in invention. I have a large piece of meadow, level and handsome, which might be supposed capable of producing three tons to the acre, and yet it is so cold and *sour*, that I hardly get one ton. I have manured it in the most lavish manner, but to very little purpose It was too wet to produce any other crop, even potatoes ; consequently there would be little use in breaking it up, and seeding down anew. So I concluded to look upon my meadow as I would upon a cow with two teats, and be contented with my ton to the acre My eldest boy is what they call a scholar, so I sent him to college. The second year he came home in the spring, and heard me speak of my *sour* meadow. He examined it, and asked why I did not spread upon it a quantity of lime or plaster, "and thus by a chimical process, expel the acidity ?" "Go to college with your jargon !" said I : but the boy talked, till I, for the first time in my life, resolved to try an experiment. And I tried it in this way : As soon as the grass began to start, I set apart about an acre of the poorest for the "chimical process." Spreading thinly upon it a quantity of plaster of paris, I waited to mark the result. The benefits derived from the *process* were soon too obvious not to be discovered. The grass looked fresh and thrifty, and could soon be distinguished from the rest of the field. When cut it was not only of a better quality, but nearly a third more in amount, than the produce of any other acre in the whole field. I tried the same experiment on the remainder, with the addition of liberal and judicious applications of manure, and the result was the same as with the acre. The boy solved the mystery, by saying that an acid and an alkali, when mingled together, produced a fermentation, in which both were neutralized, and which was favorable to the decomposition of such animal and vegetable substances, as were not readily reduced by the common course of nature. The case was a simple one—but it struck me as rather singular that my boy could *study* agriculture in *college*, to better advantage than I had *on the farm*. I therefor concluded that farming could profitably be made a *study*, and that chimistry and philosophy are two of its first and most essential branches.—*Farm. Jour*

PURSUIT OF HAPPINESS.—A regulated habit of looking beyond our immediate situations is justly considered the parent of all laudable enterprises. But the habit must be regulated, or it will become the source of miseries and crime. The secret for its regulation may be shortly expressed. He who pursues a future happiness, prosperity, or honor, by the right path, does not cast away the good in his possession, nor neglect the duties which lie before him ; but he endeavors to shape them by slow degrees to that model of perfection which his feeling or his reason has set up. On the other hand, he who views some distant object of desire, without connecting it with his immediate obligations, neither attains the blessings within his reach, nor approaches a single step to the ideal good ; he has cast away the link which connects the present with the future.—*Penny Mag.*

ADVANTAGES OF THE DIFFUSION OF KNOWLEDGE.—An intelligent class can scarce ever be, as a class, vicious ; never, as a class, indolent. The excited mental activity operates as a counterpoise to the stimulus of sense and appetite. The new world of idea ; the new views of the relation of things ; the astonishing secrets of the physical properties and mechanical powers, disclosed to the well-informed mind, present attractions which, unless the character is deeply sunk, are sufficient to counterbalance the taste for frivolous or corrupt pleasures ; and thus, in the end, a standard of character is created in the community, which, though it does not invariably save each individual, protects the virtue of the mass.—*idem.*

MY COMMON PLACE BOOK--No. III.

The selfish and vicious, who habitually deny the vitality of benevolence and virtue, draw a false general conclusion from their own individual case ; forgetting that their consciousness gives them no authority, except to "speak for themselves."—*N. A. Review.*

Courage, energy, decision, in their wild state, are often savage and destructive. When they are tamed by the society of the affections, and trained up in obedience to the moral faculty, they become virtues of the highest order, and, by their name of magnanimity, proclaim the general sense of mankind that they are the characteristic qualities of a great soul.—*Sir James Mackintosh.*

Heaven frequently sends assistance, when man seems without Hope, as the darkest hour of the night is often that which precedes the dawning. —*Sir Walter Scott.*

We are not to do evil that good may come.—*Mrs. Opie.*

The man who cannot hold a friendly correspondence with his own heart, who derives no comfort from the reflection of his mind, who dreads the idea of meditation, and is fearful of passing a single moment with himself, looks with an equal eye on solitude and on death.—*Zimmerman.*

Vacant souls are always burdensome to their possessors ; and it is the weight of this burthen that impels them incessantly in the pursuits of dissipation for relief.—*ibid.*

Guard thyself from anger, because its beginning is madness, and its end repentance.—*Arabian Maxim.*

HINTS TO HOUSEWIVES.

As far as it is possible, have bits of bread eaten up before they become hard. Spread those that are not eaten, and let them dry, to be pounded for puddings, or soaked for brewis. Brewis is made of crusts and dry pieces of bread, soaked a good while in hot milk, mashed up, and salted, and buttered like toast. Above all, do not let crusts accumulate in such quantities that they cannot be used. With proper care, there is no need of losing a particle of bread, even in the hottest weather.

When ivory-handled knives turn yellow, rub them with nice sand paper, or emery ; it will take off the spots, and restore their whiteness.

When a carpet is faded, I have been told that it may be restored, in a great measure, (provided there be no grease in it,) by being dipped into strong salt and water. I never tried this ; but I know that silk pocket handkerchiefs, and deep blue factory cotton will not fade, if dipped in salt and water while new.

Tortoise shell and horn combs last much longer for having oil rubbed into them once in a while.

Spots in furniture may usually be cleansed by rubbing them quick and hard, with a flannel wet with the same thing which took out the color ; if rum, wet the cloth with rum, &c. The very best restorative for defaced varnished furniture, is rotten-stone pulverised, and rubbed on with linseed oil.

Sal-volatile, or heartshorn, will restore colors taken out by acid. It may be dropped upon any garment without doing harm.

Spirits of turpentine, is good to take grease-spots out of woolen clothes ; to take spots of paint, &c., from mahogany furniture ; and to cleanse white kid gloves. Cockroaches, and all vermin, have an aversion to spirits of turpentine.

Lamps will have a less disagreeable smell if you dip your wick-yarn in strong hot vinegar, and dry it.

Clean a brass kettle, before using it for cooking, with salt and vinegar.—*Mrs. Child's Frugal Housewife.*